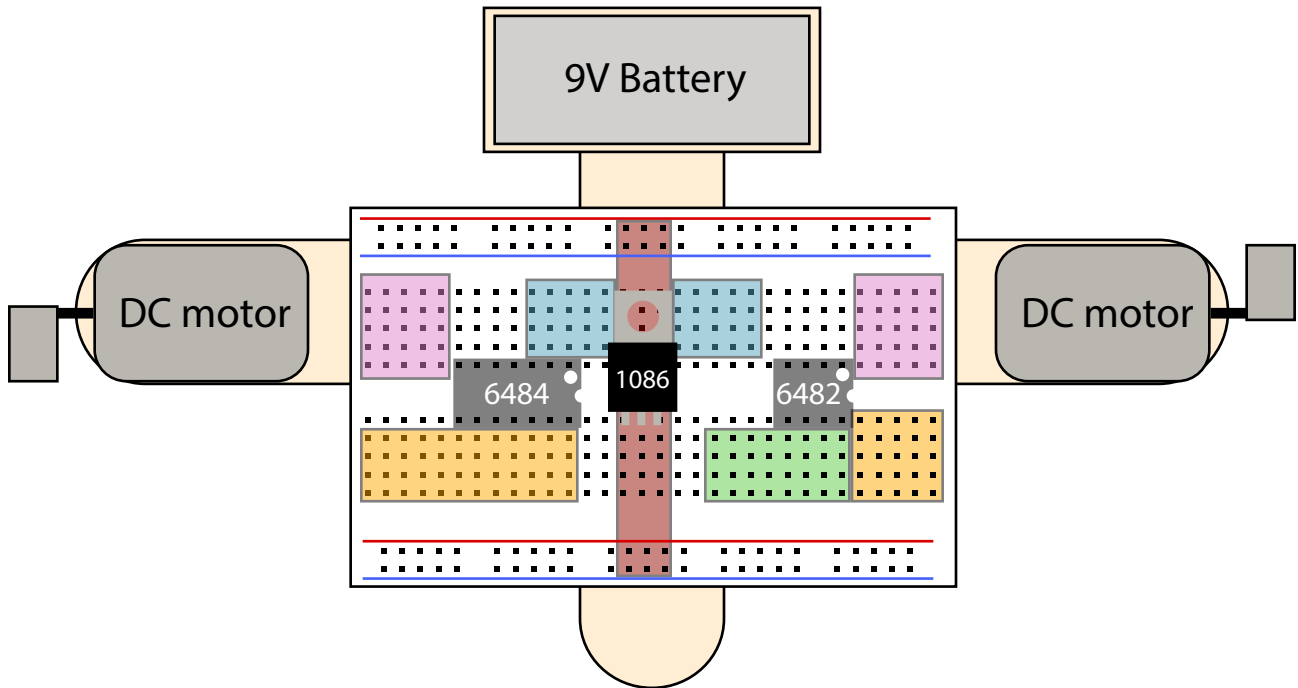


# EE40LX Robot Layout



## (Module 1) Voltage Regulator

- (1) LM1086
- (2) 10  $\mu$ F caps

## (Modules 2 & 3) Photocells + comparators

- (6) 2.7 k $\Omega$  resistors
- (2) photocells
- (1) LMC6484 (2/4 amps)
- (2) indicator LEDs - optional
- (2) 300 $\Omega$  current-limiting resistors

## (Module 3) Buzzer driver

- (1) LMC6482 (1/2 amps)
- (1) speaker

## (Modules 3 & 4) Microphone amplifier

- (1) electret mic
- (1) 10 k $\Omega$  resistor
- (2) 20 k $\Omega$  resistors
- (1) 2.7 k $\Omega$  resistor
- (1) 100 k $\Omega$  resistor
- (1) 1  $\mu$ F cap
- (1) LMC6484 (1/4 amps)

## (Modules 5 & 6) Motor drivers

- (2) DC motors
- (2) diodes
- (2) steel nuts
- (2) BC547 NPN transistors
- (2) 1 k $\Omega$  resistors

## MSP430 GPIO

### Inputs

photocell, left  
photocell, right  
microphone

### Outputs

motor, left  
motor, right  
speaker